

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) ~~Method A method~~ for determining the thickness of a layer of lacquer which is applied by electrophoretic immersion coating to an article [[(28)]], wherein the article [[(28)]] for immersion coating is immersed in a lacquer immersion bath [[(12)]] containing lacquer [[(4)]] and forms an electrode which generates, together with at least one counter electrode, an electrical field ~~as an electrode with at least one counter electrode (16,18), characterised in that comprising the following steps:~~

a) determining the electrical charge flowing through the article [[(28)]] during immersion coating [[and]]

b) determining the surface of the article [[(28)]] exposed to the lacquer, [[(14)]]

c) determining are ascertained and therefrom the thickness of the layer of lacquer based on the electrical charge [[is]] determined in step a) and the surface determined in step b).

2. (Currently Amended) ~~Method according to The method of claim 1, characterised in that wherein the electric current flowing through the article [[(28)]] during immersion coating is measured to determine the for determining the electric charge in step a).~~

3. (Currently Amended) ~~Method according to The method of claim 1 or 2, characterised in that, wherein the surface of the article [[(28)]] is determined in step b) using with the aid of the maximum starting current (J_{max}) which flows through the article [[(28)]] at the start of immersion coating.~~

4. (Currently Amended) ~~Method according to any one of the preceding claims, characterised in that The method of claim 1 wherein the thickness of the layer of lacquer is determined in step c) by taking into account the temperature of the lacquer [[(14)]].~~

5. (Currently Amended) ~~Method according to any one of the preceding claims, characterised in that~~ The method of claim 1, wherein the thickness of the layer of lacquer is determined in step c) by taking into account the pH of the lacquer [[(14)]].

6. (Currently Amended) ~~Method according to any one of the preceding claims, characterised in that~~ The method of claim 1, wherein the thickness of the layer of lacquer is determined in step c) by taking into account the electrical conductivity of the lacquer [[(14)]].

7. (Currently Amended) ~~Method according to any one of the preceding claims, characterised in that~~ The method of claim 1, wherein the thickness of the layer of lacquer is determined in step c) by taking into account the solids content of the lacquer [[(14)]].

8. (Currently Amended) ~~Method according to any one of the preceding claims, characterised in that~~ The method of claim 1, wherein the thickness of the layer of lacquer is determined in step c) by taking into account the density of the lacquer [[(14)]].

9. (Currently Amended) ~~Method according to any one of the preceding claims, characterised in that~~ The method of claim 1, wherein the thickness of the layer of lacquer is determined in step c) by taking into account the spacing between the article [[(28)]] and the at least one counter electrode (16, 18).

10. (Currently Amended) ~~Method according to any one of the preceding claims, characterised in that~~ The method of claim 1, wherein the voltage applied between the electrode [[(28)]] and the at least one counter electrode (16, 18) is ~~regulated~~ controlled in such a way that the starting current at the start of immersion coating at least approximately matches a predetermined value.

11. (Currently Amended) ~~Method according to~~ The method of claim 10, characterised in that wherein the predetermined value depends on parameters of the lacquer.

12. (Currently Amended) ~~Method according to any one of the preceding claims, characterised in that~~ The method of claim 1, wherein the immersion coating is finished as soon as the determined layer thickness has reached a predetermined ~~desired~~ target value.

— 13. (Currently Amended) ~~System~~ A system for determining the thickness of a layer of lacquer which is applied by electrophoretic immersion coating to an article [[(28)]], comprising:

- an immersion bath [[(12)]] for receiving a lacquer [[(14)]] in which the article [[(28)]] can be immersed,
- a voltage source [[(22)]], of which one pole [[(24)]] can be connected to the article [[(28)]] and of which the other pole [[(20)]] is connected to at least one counter electrode (16, 18) reaching into the immersion bath,

~~characterised in that~~

- a charge measurement apparatus ~~the system comprises means~~ (22) for determining the electrical charge flowing through the article [[(28)]] during immersion coating [[and]],
- a computer [[(34)]] which determines ~~tunes~~ the thickness of the layer of lacquer from the charge measured by the charge measurement apparatus and the surface of the article [[(28)]] exposed to the lacquer [[(14)]].

14. (Currently Amended) ~~System according to~~ The system of claim 13, ~~characterised in that~~ wherein the charge measurement apparatus ~~means for determining the charge~~ comprises an ammeter [[(32)]].

15. (Currently Amended) ~~System according to~~ The system of claim 13 or 14, ~~characterised in that~~, wherein the maximum starting current (J_{max}) which flows through the article [[(28)]] at the start of immersion coating, can be stored in the computer [[(34)]].

16. (Currently Amended) ~~System according to~~ The system of claim 15, ~~characterised in that~~

wherein the computer [[(34)]] determines the surface of the article [[(28)]] exposed to the lacquer [[(14)]] from the maximum starting current (I_{max}).

17. (Currently Amended) ~~System according to any one of claims 13 to 16, characterised by~~
The system of claim 13, comprising a temperature sensor [[(38)]], which is connected to the computer [[(34)]], for determining the temperature of the lacquer [[(14)]].

18. (Currently Amended) ~~System according to any one of claims 13 to 17, characterised by~~
The system of claim 13, comprising a pH sensor [[(40)]], which is connected to the computer [[(34)]], for measuring the pH factor of the lacquer [[(14)]].

19. (Currently Amended) ~~System according to any one of claims 13 to 18, characterised by~~
The system of claim 13, comprising a conductivity sensor [[(42)]], which is connected to the computer [[(34)]], for measuring the conductivity of the lacquer [[(14)]].

20. (Currently Amended) ~~System according to any one of claims 13 to 19, characterised by~~
The system of claim 13, comprising a sensor, connected to the computer [[(34)]], for determining the solids content of the lacquer [[(14)]].

21. (Currently Amended) ~~System according to any one of claims 13 to 20, characterised by~~
The system of claim 13, comprising a density sensor, which is connected to the computer [[(34)]], for measuring the density of the lacquer [[(14)]].

22. (Currently Amended) ~~System according to any one of claims 13 to 21, characterised in~~
~~that the system comprises a regulating~~ The system of claim 13, comprising a control device
which regulates is configured to control the voltage applied between the electrode [[(28)]] and the at least one counter electrode (16, 18) in such a way that the starting current at the start of immersion coating has a predetermined value.

23. (Currently Amended) ~~System according to any one of claims 13 to 22, characterised in that the system comprises~~ The system of claim 13, comprising a controller which is configured to terminate[[s]] the immersion coating as soon as the specific lacquer thickness has reached a predetermined desired target value.